

Comments on July 2014 draft permit for Sand Island WWTP:

1. Compliance schedule for enterococcus:

- a) The permit needs to make clear that the compliance schedule and interim limit only apply to the new monthly geometric mean EL and that the permittee must comply with the maximum daily EL immediately. **Additional language was added to make it clear that the interim limit only applies to the new monthly geometric mean for enterococcus.**

**Part A.6.a now reads: "The Permittee shall immediately comply with the maximum daily limitation for enterococcus. The Permittee shall maintain compliance with the following interim effluent limitation for enterococcus at Outfall Serial No. 001. The interim monthly geometric mean effluent limitation for enterococcus shall be effective from the effective date of this permit until December 31, 2035.**

- b) The compliance schedule must include the 2022 milestone from the Consent Decree and must require compliance no later than the earlier compliance deadline in the Consent Decree (i.e. 2035, not 2038). Please provide the justification for the length of the schedule. Was the length based on a proposal by the permittee? If not, what information was used to determine the schedule? Since the facility already has disinfection facilities onsite, allowing them to take the full length of the consent decree schedule to upgrade their facility to meet the monthly geomean effluent limit may not meet the requirements of 40 CFR 122.47, especially since they may just have to expand or optimize their current disinfection facilities. **The 2022 milestone from the Consent Decree was added into the compliance schedule and the completion date for the compliance schedule was revised to 2024.**
  - c) Recommend the interim limit for enterococcus be calculated based on the 95<sup>th</sup> percentile, consistent with how the interim limits for BOD and TSS were calculated in the Consent Decree. **The performance-based effluent limitation based on the maximum discharge concentration is consistent with the DOH procedures for applying performance-based effluent limitations on enterococcus and other parameters (i.e. nutrients).**
2. Why were there only 3 data points for ammonia? Could more effluent data be obtained in order to better calculate a more representative performance-based effluent limit? **The previous permit did not require monitoring for ammonia nitrogen. The data for the calculation was from the renewal application. The performance-based effluent limitation of 47,894 µg/l is less than the performance-based effluent limitation for Honouliuli WWTP, which is 69,700 µg/l .**
3. The dieldrin average annual limit is more stringent than the previous permit and the fact sheet found on page 28 that the permittee may not be able to immediately comply with this limit. Has the permittee requested a compliance schedule for this particular limit? Also, the fact sheet states the permittee may not be able to comply with the new annual average DDT limit. Has the permit requested a compliance schedule for this limit? Recommend strengthening the fact sheet here. **The Permittee has not requested a compliance schedule and we are not sure how to justify one.**

Therefore, after the statement that the Permittee may not be able to immediately comply with this limit, the following was added: “The maximum annual average effluent limitation for dieldrin may be attainable after the upgrades required by the Consent Decree have been initiated.”

4. Page 4 of permit: ammonia EL measurement frequency and sample type are missing. The measurement frequency and sample type for ammonia was added.
5. Page 4, footnotes 6 and 7 need to be clarified. It appears that footnote 6 allows compliance to be determined by either a daily maximum or a daily geometric mean. This should be a single sample maximum, consistent with Honouliuli. Also, recommend removal of footnote 7, as unnecessary. The footnotes were not deleted because the daily maximum enterococcus limit of 18,000 CFU/100 ml is consistent with the previous permit where the daily maximum can mean a daily geometric mean.
6. Fact sheet, page 6, footnotes 3 and 5 of Table F-2: Please change to:
  - <sup>3</sup> Effluent limitations contained in the previous permit ~~and effective through December 2010. These effluent limitations were replaced with interim effluent limitations in the December 2010 Consent Decree for the United States of America v the City and County of Honolulu (2010 Consent Decree).~~
  - <sup>5</sup> Interim effluent limitations contained in the 2010 Consent Decree. Interim effluent limitations are applicable until ~~deadlines established the facility is in compliance with secondary treatment standards and became effective~~ in December 2010 Consent Decree.Language was revised as requested.
7. Fact sheet, page 6, Table F-3: there appears to be a typo, in that “average daily” should be “maximum daily” in header under both effluent limitation and reported data. Is that correct? The limitation for most of the parameters in Table F-3 is “average daily.” Enterococci and total residual chlorine will be moved to Table F-2 since the limitations for these parameters are “maximum daily.”
8. Fact sheet, page 8 under section 7. Please remove the last sentence in the second paragraph: “~~The 2010 Consent Decree supersedes requirements in the draft permit.~~” Last sentence was removed as requested.
9. Fact sheet, page 12: please remove paragraph before the WQBELs section that begins with, “Thus, technology-based effluent limitations based on secondary treatment...” Could replace with, “The Consent Decree requirements for BOD and TSS supersede the applicable TBELs until the deadline established in the Consent Decree.” The paragraph was removed as requested and the suggested language was added.
10. Fact sheet, pages 18-19, RPA table should include columns for number of samples and applied dilution factor, if applicable, in order for transparency. Columns for number of samples and applied dilution factor were added.

11. Fact sheet, page 31 should cite the specific portion of the CFR that discusses the criteria applicable to Hawaii. A citation referencing 40 CFR Section 131.41(e)(2) was added.
12. Fact sheet, page 33 and 34 state the highest monthly geomean for enterococcus was 2,460,035 cfu/100ml. It should be made clear when this value was reported (before or after UV). This seems clear in the paragraph on page 33, but not on page 34. Page 34 was clarified as requested.
13. Fact sheet, page 39, Table F-9, footnote 3 should not be a geometric mean. It is referenced in the proposed EL for enterococcus and this is a maximum daily limit, not a geomean. The footnote was not deleted because the daily maximum enterococcus limit of 18,000 CFU/100 ml is consistent with the previous permit where the daily maximum can mean a daily geometric mean.
14. Fact sheet, page 55: please remove sentence regarding urban area pretreatment requirements being removed, as kept in permit. The sentence was removed as requested.
15. Additional comment during telephone conference – Remove references to cost on page 34 of the fact sheet. References to cost was removed.
16. Additional comment during telephone conference - Revise compliance schedule justification for enterococcus. The compliance section justification was revised to the following:

Based on effluent data from October 2006 through December 2013, the highest monthly geometric mean of 2,460,035 CFU/100 mL was during the month of October 2006. However the ultraviolet disinfection system did not come on-line until November 2006, at which point the highest monthly geometric mean was 16,431 CFU/100 mL. It does not appear the Permittee can immediately comply with the monthly geometric mean effluent limitation for enterococcus. Consistent with HAR, Section 11 55-21, this permit establishes a compliance schedule for the Permittee to comply with the final monthly geometric mean effluent limitation for enterococcus by June 30, 2024. Because the daily maximum effluent limitation for enterococcus is no more stringent than the limitation established in the previous permit, a compliance schedule for the daily maximum effluent limitation may not be considered.

The schedule of compliance is being proposed for a parameter that was not limited at the proposed level in the previous permit and the existing discharge is not expected to immediately comply with the proposed limitation. Final compliance will ultimately require the implementation of an unidentified treatment technology. Sufficient time to select the preliminary preferred alternative, conduct pilot testing, engineering design, permitting, construction, and optimization and testing is not available prior to the effective date of this permit. Thus, a compliance schedule is necessary.

The Permittee is currently subject to the 2010 Consent Decree, which requires the Permittee to upgrade the facility to meet secondary treatment standards for BOD5 and TSS by December 31, 2035. The planning and construction of the facility upgrades necessary to comply with the final monthly geometric mean effluent limitation partly coincides with the 2010 Consent Decree,

however, since disinfection facilities are already currently in place at the facility, the Permittee may only need to optimize or expand the capacity of these facilities in order to comply with the final monthly geometric mean WQBEL. Thus full compliance with the final effluent limitations is required by June 30, 2024.

HAR, Section 11-55-21(b) states, "When a schedule specifies compliance longer than one year after permit issuance, the schedule of compliance shall specify interim requirements and the dates for their achievement and in no event shall more than one year elapse between interim dates. If the time necessary for completion of interim requirement (such as the construction of a treatment facility) exceeds one year and is not readily divided into stages for completion, the schedule shall specify interim dates for the submission of reports of progress towards completion of the interim requirements."

The compliance schedule for enterococcus allows for the funding, evaluation, design, and the execution of the construction contract to mirror the 2010 Consent Decree, as the acquisition of funding and contract execution can be challenging with government entities. However, once the contract is executed, since the current disinfection facility may only need to be upgraded, the full length of the Consent Decree should not be necessary.

During the compliance schedule, the Permittee is required to maintain current treatment capability. An interim effluent limitation for enterococcus has been established until the final effluent limitation becomes effective. The interim effluent limitation has been developed based on observed effluent data over the recent permit-term. The highest observed monthly geometric mean between October 2006 through December 2013 was 2,460,035 CFU/100 mL. However, this observed concentration is approximately seven standard deviations above the mean, much higher than any of the other observed geometric means and was prior to the initiation of the ultraviolet disinfection system in November 2006. The highest observed geometric mean does not appear representative of current treatment capabilities. The second highest geometric mean between October 2006 through December 2013 was 16,431 CFU/100 mL and falls within three standard deviations of the observed mean. Thus, a monthly geometric mean effluent limitation of 16,431 CFU/100 mL has been established in this permit based on current facility treatment capabilities.

As previously discussed, effluent data indicate that the Permittee cannot immediately comply with the proposed monthly geometric mean effluent limitation for enterococcus, anticipated upgrades necessary to comply with the final effluent limitations may not be implemented prior to the effective date of the permit, a compliance schedule that represents the minimum time period for compliance has been established, and an interim effluent limitation has been established that require the Permittee to maintain current treatment capabilities. The proposed schedule of compliance is in accordance with HAR, Section 11-55-21(b) and 40 CFR 122.47.

Anti-backsliding regulations are satisfied because monthly geometric mean effluent limitations were not established in the previous permit for enterococcus, thus these limitations are at least as stringent as the previous permit.

17. Additional comment during telephone conference – Include a compliance schedule for dieldrin and DDT? The following language was added “...Since the maximum annual average effluent concentration is greater than the proposed annual average effluent limitation of 0.0074 µg/L, the DOH has determined that the facility may not be able to immediately comply with proposed annual average effluent limitation. The maximum annual average effluent limitation for dieldrin may be attainable after the upgrades required by the Consent Decree have been initiated.”